

California GARDEN

MARCH-APRIL 1986

One Dollar

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HORTICULTURE CALENDAR

* San Diego Floral Association Event

Courses offered by Rene Van Rems, Bloomen International, 1329 Lake Drive, Encinitas, CA 92024, (619) 944-0252:

- Mar. 1 & 2 **European Floral Work for the Modern Bride**, 9-5 p.m. daily, \$145.00
- Mar. 3-24 **Mondays:** Introductory classes Floral Design, 2-5 p.m. or 7-10 p.m. \$110.00
- Mar. 4-25 **Tuesdays:** Intermediate classes Floral Design, 2-5 p.m. or 7-10 p.m. \$110.00
- Mar. 5-26 **Wednesdays:** Advanced classes Floral Design, 1-5 p.m. or 7-10 p.m. \$110.00
- Mar. 15-16 **All Industry Sessions on Sculpture, Parallel and Vegetative Designs**, 9-5 daily, \$145.00
- Mar. 1 & 2 **La Jolla Chapter of the Ohara School of Ikebana's Show**, 11-5 p.m., La Jolla Village Square Shopping Center, Community Room (near Bullocks Wilshire), Theme: Hina Matsuri Girl's Day Festival. Ample free parking.
- Mar. 1 & 2 **San Diego Daytime African Violet Society's 5th Annual Show "Violet Hoedown"**. Majorca Room, Casa del Prado, Balboa Park, San Diego. Sat: 1-5 p.m. Sun: 10-4 p.m. Free.
- Mar. 4-8 **Showcase of Miniatures** featuring fascinating private collections. 11-4 p.m., Darlington House, 7441 Olivetas Avenue, La Jolla, CA. Beautiful grounds. Luncheon \$6.00, served 11:30-2:00 p.m. Admission \$4.00. Reservations 454-7625.
- *Mar. 5 **Contemporary American Flower Arranging Class with Martha Rosenberg**, Room 101 or 102, Casa del Prado, Balboa Park 9:30-2 p.m. Call Marie Walsh 298-5182 for reservations.
- *Mar. 6, 13, 20, 27 Apr. 3, 10, 17, 24 }
Mar. 8 **Thursday Workshop with Colleen Winchell**, Free Floral Crafts Instruction - Open to the public. Casa del Prado, San Diego Floral Association Library, Room 105, Balboa Park, Thurs: 10-3 p.m. Information: 479-6433.
- Mar. 8 & 9 **33rd Annual Meeting of California Macadamia Society** at the Grand Tradition in Fallbrook 8:30 a.m. Luncheon \$12.50. Reservations no later than March 1. Information: Secretary, P.O. Box 1290, Fallbrook, CA 92028.
- Mar. 8 & 9 **South Bay Orchid Society Show & Sale**. Torrance Recreation Center, 3341 Torrance Blvd., Torrance, CA (corner Torrance Blvd. and Madrona). Sat: 1-8 p.m. Sun: 9-6 p.m. Admission \$1.50; 6-17 years \$1.00; under 6 years Free. Over 65 \$1.25.
- Mar. 12, 19, 26 **Contemporary American Flower Arranging Classes with Adrienne Green**. Majorca Room, Casa del Prado, Balboa Park, San Diego. Wed: 9:30 a.m.-2 p.m. Information: 298-5182.
- Mar. 13 & 14 **The Flower Arrangers Guild of Southern California presents "Patterns of Beauty - The Creative Way"**. San Marino Woman's Club, 1800 Huntington Drive, San Marino, California. Donation: \$3.00. Free Parking. Bus tours welcome. Thurs: 1-7 p.m.; Fri 10-5 p.m. "THE CREATIVE WAY" - These words reflect the true spirit of the Flower Arrangers Guild. Following the art principles, as in all media of art, each member creates her own three-dimensional flower arrangements and designs. More than 75 arrangements, including several table settings, will be on display, using all forms of nature and art objects. This Guild was organized in 1960 to seriously study the art of flower arrangement. At the monthly workshops each member composes an arrangement for study and critique. From show donations, a contribution will be made to the Descanso Gardens Guild, a non-profit organization whose purpose is to preserve, protect and promote Descanso Gardens for posterity.
- Mar. 15 & 16 **18th Annual Festival of Ikebana and Japanese Art by San Diego Chapter 119, Ikebana International**. "Spring Flowers" -- "Haru No Hana" will portrayed by the ten schools of Japanese flower arranging within the group. Tea ceremony and flower arranging demonstrations both days and exhibits in related arts. Casa del Prado, Room 101, Balboa Park. 11-4:30 p.m.
- Mar. 22 & 23 **Exotic Plant Society 8th Annual Show**, Majorca Room, Casa del Prado, Balboa Park, San Diego Sat & Sun: 10-4 p.m. Free.
- Mar. 22 & 23 **La Jolla Village Garden Club Flower Show "Impressions of Springtime"** (Poetic Interludes). Open to Public. Recreation Center, 615 Prospect Street, La Jolla, California. Sat: 1-5 p.m.; Sun: 12-4 p.m.
- *Mar. 25 **Walking Tour of Main Library in San Diego**. Meet at 10 a.m. at main entrance on E Street between 8th and 9th. Guided tour of rare books room and horticulture sections. Call Bobbie Bootman for reservations: (619) 222-2806. Free.



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FRONT COVER: "CALIFORNIA POPPIES" by Niki Threlkeld, who specializes in illustrating wild flowers.

For ten dollars a year, a garden club may become an affiliate member of San Diego Floral Association. This entitles the club to a year's subscription to California Garden, to be listed as an affiliate member in each issue of the magazine, showing name of president, phone number, address, place of meeting and time of meeting. It also provides one free ad per year, space permitting, in the magazine. Affiliate members are responsible to keep us informed of any changes in their listing.

Camera-ready garden related advertising may be placed in California Garden at the following rates:

| SIZE | ONE-TIME | THREE TIMES | SIX TIMES |
|----------------------|----------|--------------|--------------|
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Classified Ads are \$2.00 per line with minimum of 2 lines per issue. If published in more than one issue, it is \$1.50 per line.

We reserve the right to make final determination as to the suitability of any advertisement. Advertiser will pay for the cost of artwork, if required. California Garden is published at 10% reduction in size. If you desire to advertise in California Garden, request a copy of the Advertising Contract.

Deadline dates for horticultural events, advertising contracts, changes to listings, and other material for California Garden are: Feb. 1, Apr. 1, June 1, Aug. 1, Oct. 1, and Dec. 1.

We can no longer provide a replacement copy free of charge if you fail to notify us of a new address at least 60 days in advance.

To remind you that your subscription is due to expire soon, a stamp "SUBSCRIPTION EXPIRES NEXT ISSUE" will be stamped on or near your address label on the issue prior to expiration date. On the following issue, a stamp "SUBSCRIPTION EXPIRED THIS ISSUE" means you are automatically dropped from the mailing list unless a renewal is initiated within that month. Make your renewals early to avoid missing an issue.

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Under the sponsorship of the Park & Recreation Department, City of San Diego

Meetings: 3rd Tuesday, February, April, June, October

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America's Fabulous Corn Palace And The Year Of The Corn

By Phyllis Ann Tjaden

Imagine a palace with walls entirely covered with corn, in a town only 12 years old with 3,000 inhabitants. Determination of pioneer farmers inspired the building of the first Corn Palace in 1892. During the bitter cold winter, the squirrels and birds feast; each autumn the redecoration begins again for the magnificent World's Only Corn Palace in Mitchell, South Dakota. (A book, with that title, published by the Goin Co., Mitchell, S.D. 57301, printed in Italy by Kina Italian, Milan, captures the history of this beautiful palace).

Full size tar paper drawings are mounted, scaffolding erected and corn cobs, sawed in half, are nailed into a design. Ten different colors of corn are used. Each year is a new theme. One picture might be an Indian chief and teepee, while another could be a pioneer in sod hut or a buffalo hunt. Two to three thousand bushels of corn are used each year and 40 tons or more of such grains as flax, oats, cane, etc. Originally, designs were incredible geometrics - even on the minarets!

The present Corn Palace, with a 5,000 capacity and 55 x 90 ft. dance floor, was erected in 1921 to replace that first wood frame building.

Speakers such as Theodore Roosevelt, William Howard Taft, Franklin D. Roosevelt and Herbert Hoover were among the prominent men who attracted thousands of visitors. Audiences were thrilled by John Philip Sousa's band. Many danced to the music of the orchestras of Harry James, Paul Whiteman, Tommy Dorsey and Jimmy Dorsey. The Champagne Music of Lawrence Welk drew record-breaking attendance. (Welk's 3-piece band had played dances at Mitchell).

Corn Palace week is in September with an antique farm machinery parade, arts/crafts displays, antique tractor race and many agricultural exhibits. Recently featured were Myron Floren, Eddie Skeets, Bobby Vinton, a polka festival and country music jamboree.

The Corn Palace is used for basketball games, dances, conventions, music festivals and public meetings. The impressive designs in corn, both interior and exterior, are there all year but the most exciting time to be at the fabulous Corn Palace is in the fall when the big harvest moon shines on the onion domes of this midwest palace. Remember 1986 is the year of the corn.



Once you've tasted fresh picked sweet corn out of your own garden, you will want to grow it year after year.

For 1986, the National Garden Bureau has chosen corn as the Easy-to-Grow Vegetable of the Year. Americans consume corn in some form probably every day -- corn flakes, corn meal, corn chowder, etc.

The history of corn can be traced to Mexico. A wild grass, Teosinte (*Zea Mexicana*) is the ancestor of all known species. Teosinte is still found in remote areas of Mexico and Guatemala. A perennial form was discovered in 1977 by a Mexican botany student in the mountains of the Sierra de Manatlan in Central Mexico.

Remains of corn, identified as 7000 years old, were discovered in the Valley of Tehuacan, Mexico. The earliest corn cob was of interest because it was in its husk, which meant humans had to husk it and distribute kernels.

Almost 300 racial forms of corn have been described from the regions of Mexico, United States, Central and South America. Corn has proven to be one of the most climatically adaptable members of the grass family.

Sweet corn developed from an Andean corn, Chulpi. It contains the sugary gene and produces an oval shaped ear bearing 18 to 30 rows of yellow kernels. In prehistoric times it was dried and eaten as a snack. Popular in Bolivia, a drink of high alcohol content was derived from this corn. In Peru a well-preserved ear of this type was dated between 1000 to 1534 A.D.

Sweet corn remains dating from 1200 to 1300 A.D. have been found in caves of New Mexico and Arizona.

Columbus is said to have brought maize (as grown by the American Indian) to Spain in 1493. Cultivation of this crop was spread by the Portuguese traders. It is said that maize was grown in the Philippines before 1521 when Magellan arrived.

In 1779 the first recorded sweet corn was collected from the Iroquois Indians of the Susquehanna River Basin. The variety, Papoon, was the first colonial sweet corn in Connecticut. It was offered as a seed in a catalog of 1821. Papoon has a white kernel. It was not until 1902, with the introduction of Golden Bantam, that the popular choice became yellow kernels.

All early varieties were open pollinated. Some of these varieties are still available such



The three types of corn shown are hybrid sweet corn, popping corn and ornamental corn.

as Stowell's Evergreen (1853), Country Gentlemen (1890) and Golden Bantam.

When the new science of hybridization was discovered, many experiments were conducted on sweet corn varieties. In 1924 the first hybrid, named Red Green, was released by the Connecticut Agricultural Experimental program. The performance of hybrids is quite predictable from year to year.

Sweet corn is called *Zea mays rugosa*. It is a cultivar of field corn (*Zea mays L.*) The genus *Zea* is Greek for some cereal; it is the species *mays*, a different spelling for maize which means corn, the variety *rugosa*, meaning wrinkled and referring to the mature seed. Corn is a member of the grass family *Gramineae*.

POLLINATION

Corn is monoecious, having male flowers on top of the plant and female flowers (silks) at leaf axes along the main stem. The male flower, called the tassel, can produce up to a million pollen grains. Several days before the female silks emerge, the pollen begins to shed but the tassel continues to produce pollen and mature for many days. Pollen moves by wind and gravity. Therefore, single rows of corn don't usually pollinate and yield as well as multiple rows. The ear (female flower) is enclosed in layers of "husk" with only the fine string-like styles (silks) emerging above for pollination. The ovaries are produced in rows along the upright axis of the spike or cob. After fertilization they develop into kernels.

CORN CATEGORIES

The hundreds of corn varieties can be placed in one of four categories: *Zea mays rugosa* (sweet corn); *everta* (popcorn) with exploding seeds when heated; *indentata* (Dent or Field corn) which is used for livestock feed; *indurata* (Flint or Indian

corn) with decorative, multicolored kernels which, when dried, are almost impossible to grind by hand.

Two other types of corn can be grown by home gardeners. The genetic dwarf, midget corn is identified by an ear 4 to 6 inches at maturity on a stalk growing only 3 to 4 feet high. Broom corn is grown for its long fibrous tassels which when dried make old fashioned sweeping brooms.

SWEET CORN

The sweet corn choice for home gardeners is determined by color of kernel — white, yellow, or bicolor (white and yellow); the growing season of early (65 to 70 days), mid-season (75 to 85 days), or late season maturity. Some gardeners choose to plant in successive sowings two weeks apart. This extends the fresh harvest for eating purposes or allows for canning or freezing part of the crop.

Growing

After planting, watering is important. Irrigate the soil rather than the whole plant with overhead sprinklers. This will ensure proper pollination. If the tassel or pollen is wet the chances for pollination are hampered. It is critical to water sweet corn just before the appearance of the silk and a couple of weeks after the silks turn brown. This is the kernel filling stage. During a drought, irrigation every 10 to 14 days will sustain the plants.

Deep watering is always better than shallow for all soils except sandy types. Sweet corn matures in 9 to 15 weeks depending on the variety. For optimum growth and production, keep the sweet corn rows or hills weeded. Hoeing is recommended until the stalks stand 12 to 15 inches tall. As they grow taller, avoid deep disturbances around and between the corn stalks as this may damage the shallow root system. Mulching with hay, compost, newspapers or other organic biodegradable materials will help to maintain the moisture and control competitive weeds among the corn.

Sweet corn is a heavy feeder and will quickly deplete soil nutrients. Additional side dressings of 12-12-12 or 5-10-10 at the rate of 1/2 pound for 100 square feet when the stalks are 8 inches tall and again when the tassels appear should keep the corn well fed.

Pests, Diseases, Growing Problems

A carbaryl compound pesticide can control corn borers and corn earworms. The caterpillar-like larva of the corn borers are first noticed by a small pile of sawdust-like matter beside a small hole on the stalk beneath the tassel. The worm will crawl down and eat its way into the ear. The eggs of the earworm are laid on the silks, and the larva of a Noctuid moth eats its way into and down through the ear of corn consuming the immature kernels along the way. The damage is to the top of the cob. Placing a rubber band,

or clothespin on the tip of the ear sometimes helps prevent the earworm damage. There are fewer earworm problems where the winter temperature is less than 0 degrees Fahrenheit.

Many raccoons, deer and other wildlife have a preference for corn. To protect the young ears of corn from raccoons, Jim Schuster, University of Illinois Extension Service, suggests sprinkling stalks and leaves with baby powder. Re-apply after each rain to deter the raccoons. Deer and raccoons are deterred by a half bar of Dial soap dangling on a 2-1/2 ft and 1 ft. stake and skimming 6 inches above the ground where mice can't reach it to eat it. Surround the block of corn with these stakes at 4 ft. intervals and intersperse between rows.

Harvest

For best results most gardeners do not pick corn unless ready to use. Sweet corn has a very high percentage of sugar and water in the composition of the kernels. When at its prime, the kernels will be soft and succulent. As the ear matures, the water decreases resulting in tough, doughy kernels of starch. Most sweet corn is ready to eat in two and a half weeks after pollination. Very hot temperatures will hasten the maturity of the corn in the garden. Harvest time is indicated by brown, dry silks, round, blunt tip of cob, or tight fitting husk. Carefully loosen the husk at the top. Pop a kernel with your thumbnail. If the juice spurts out and looks milky; harvest. If the juice is clear, wait another day. This thumbnail rule does not apply to the high sugar types; both sh2 and se types are mature when the kernel juice is clear. Do not loosen husks indiscriminately as it encourages the entrance for insects and birds.


Removal of the ear involves a sharp downward pull, with a quick twisting wrist action.

Storage

Harvested corn should be refrigerated to retain the best flavor. Sweet corn can be canned or frozen. The easiest method is freezing. Blanch corn for 8 to 10 minutes, then chill thoroughly in cold water and freeze. You'll really enjoy fresh sweet corn out of your own garden.

Resources:

Fact Sheet by the National Garden Bureau
Corn Palace, 604 N. Main St., Mitchell, S.D. 57301



perennial
adventure

Unusual plants for the
flower garden. Call.

christine s. wotruba
10548 anaheim dr.
la mesa, ca 92041
(619) 466-1203

The Genus Dudleya

By Dorothy Dunn

The genus **Dudleya** was erected by Britton and Rose in 1903 and commemorates the name of William Russell Dudley, who was Professor of Systematic Botany at Stanford University from the date of its founding until 1910.

Dudleyas belong to the very large **Cras-sulaceae** family, and are native to the far western part of the United States and Mexico. Many species which we now recognize as **Dudleyas** were at one time included in **Echeveria**. There are now about 40 recognized species in the genus (Jacobsen lists 43), plus numerous varieties, sub-species, and hybrids. The earliest known species of what is now **Dudleya** was described by the botanist Adrian Haworth in 1803 as a **Cotyledon**. The second species was described in 1811, and the third and fourth simultaneously in 1840. These are now two of our most familiar San Diego County **Dudleyas**, **D. pulverulenta** and **D. lanceolata**, although they were both originally described as **Echeverias**. Britton and Rose selected **D. lanceolata** as the type species of the genus, considering it to be the most representative at that time.

The genus consists of three sub-genera: **Dudleya**, **Stylophyllum**, and **Hasseanthus**. While **Dudleyas** have broad leaves and wide-open flowers, **Stylophyllums** (the name means "pencil-leaved") are characterized by narrower, often cylindrical leaves which are - theoretically - edible, with an acrid but delicate flavor, and their flowers are five-pointed stars, much like **Sedum** flowers. **Stylophyllums** are closely related to the **Germanias** and **Sedums**. They are native only to the coast region of California and the adjacent islands. San Pedro is approximately their northernmost boundary, while they extend south into the northern half of Baja California. Both **Dudleyas** and **Stylophyllums** possess a thick, woody, almost caudex-like stem, and their dry, dead leaves are persistent. **Hasseanthus** can be recognized by its bulb-like underground corm, resembling **Gladiolus**, and the fact that the plant generally dries up and is leafless during the summer and fall.

While the range of **Dudleyas** is fairly comprehensive, extending down the Pacific Coast from Oregon to the tip of Baja California, including all the adjacent islands, and inland into Nevada, Utah, and Arizona, the individual species generally have a very limited distribution. They may be found clinging to sheer, vertical cliffs with their roots in crevices, or growing under the protection of coastal scrub. Particularly striking in habitat



DUDLEYA PACHYPHYTUM — Photo by Wilbur H. Glover

are **D. pulverulenta**, which present an almost incongruous contrast against the hot, dry, barren hillsides where it is usually found in southern California, and **D. brittonii**, whose spectacular habitat is virtually restricted to the purplish cliffs of La Mision about halfway between Tijuana and Ensenada, where it literally cascades down the sheer rock walls. In Baja, it is not unusual to find three or four species growing quite close together in one locale, and some interesting hybrids have occasionally resulted from this proximity.

Recent outstanding additions to the genus include two Baja California species, **D. pachyphytum** and **D. campanulata**. **D. pachyphytum** is a very distinctive plant, native only to Cedros Island, where it grows in association with another spectacular Cedros Island endemic, **Ferocactus chrysacanthus**. It was first discovered in 1971, and described by Reid Moran in 1980. Other Cedros Island **Dudleyas** include **D. acuminata** and **D. albiflora**. **D. campanulata** is endemic to Punta Banda, where it has been found only on the south coast, mainly on west-facing seacliffs. Although it was just published in 1978 by Reid Moran, he believes it actually dates back to 1934 when Don Skinner presented him with a **Dudleya** of unknown origin. Four other **Dudleyas** grow on Punta Banda: **D. attenuata** ssp. **ortucii**, a branching form of **D. brittonii**, **D. anomala**, and **D. lanceolata**.

In cultivation, most **Dudleyas** are not difficult to grow. They do quite well in either pot or open-ground situations, preferring a little shade and a well-drained soil. Although they are winter growers, they probably should be kept a little on the dry side most of the year. Most species go somewhat - to very! - dormant in the summer after their spring blooming period, and at this time some species (notably **D. pulverulenta**) appear almost dead, with many dry but tenacious lower

leaves. When watering, try to avoid splashing the leaves, as this tends to wash away the beautiful chalky "bloom" which is so typical of many *Dudleyas*.

There is one serious pest which afflicts plants growing in the wild, and this is a stem-borer which can eventually kill the plant if not checked. Collected plants should be thoroughly cleaned and examined to make sure they are free of all traces of this pest. Aphids are a slightly lesser evil; they usually arrive as soon as the buds appear on the flower stalks, but are fairly effectively removed with an insecticidal soap solution or even a strong spray of water.

Propagation is by seed, division of clumps, or stem-cuttings. The latter method can be somewhat difficult as many species continue to grow and split dichotomously from a single woody (and tough) stem. While this means of propagation sometimes results in a rather drastic mutilation of the plant, most *Dudleyas* are quite hardy and manage to survive the operation.

Literature consulted:

Brown, J.R.

Succulents for the Amateur, pp. 89-90

Johansen, D.A.

Contributions Toward a Monograph of the Genus Dudleya, Cactus and Succulent

Journal, Vol. IV, nos. 2, 3, 5, 6, 7 - 1932

Moran, Reid

Dudleya campanulata, a New Species from Baja California, Cactus and Succulent Journal, Jan. Feb., 1978

Moran, Reid and Benedict, Michael

Cedros, Mexico, Cactus and Succulent Journal, May-June, 1981

Skinner, Don B.

Stylophyllums, Desert Plant Life, June 1935

Skinner, Don B.

Stylophyllums with Flattened Leaves, Desert Plant Life, August, 1935

Dorothy Dunn has made many trips to Baja California to collect plants for the Wild Animal Park hillside.

Flower Arrangements



Edie Pate of Fresno at a recent San Diego Floral Association Luncheon.

Photos by JoAnn Gould



by Edie Pate



PHOTO BY PAT ZIEBARTH

Parasols in the Garden

By Bess M. Tittle

Had Hansel and Gretel lived in New Zealand, the fate of those abandoned children might have been different: they could have used the fronds from the Silver tree fern — Ponga, in Maori (*Alsophila tricolor*, formerly *Cyathea dealbata*) — to light their safe path back home. That's what the Maori natives did — used the silvery backsides of the fronds to mark their trails. In fact, the Silver tree fern frond is the national emblem of New Zealand — and may it always show those Kiwis the way to go!

In addition to the Ponga, New Zealand has some 200 other species of the palmlike trees though only a few have been imported to the States for cultivation. They are as ubiquitous there as sheep, appearing almost everywhere on the islands.

A few species withstand temperatures as low as 20 degrees Fahrenheit for brief periods in the snowy highlands. They unfurl their umbrella crowns in the bush and rain forests, perch along rushing streams, stubbornly cling to bare hillsides and flourish near geothermal-steaming, thin earth crust.

The question is: will they survive in southern California? Margaret Sodomka, librarian for the San Diego Fern Society and a long-time fern devotee, attests to their adaptability, saying, "Yes, tree ferns are simply not hard to grow here." Successful growers advise gardeners to give them proper location, large amounts of water and food, and stand back.

First, a few basic facts, starting with their sex life. Like all ferns, they have neither flowers nor seeds. Instead, they produce spores on the undersides of their fronds. Brown spots or lines, called sori, on the leaf backs are composed of numerous small round bodies (sporangia) inside of which are the spores. When the sporangia dries and splits, spores are released and fall to the ground. The spores grow into a tiny, low simple plant, a prothallus, which reproduces by sperm and eggs. The resultant offspring growing out of the prothallus becomes the spore-bearing adult fern.

This reproductive system is called an alternation of generations. Perhaps as a result of the complicated process, some species take up to 20 years to produce spore and then they may be sterile early on.

The stem of the tree fern grows erect and develops into a trunk often covered with hairs or scales. Fronds arch from the crown of the trunk in a graceful circle, like an open parasol. New fronds appear as croziers or fiddleheads — the budding fern leaves which uncoil from the base upwards and from the midrib outward. Underground roots are generally small and shallow.

John Ekstrand, a Los Angeles hobbyist and nurseryman, describes a tree fern as a vascular bundle that grows upright in a pithy core surrounded by firm tissue from which grow aerial roots.

More specifically, Barbara Joe Hoshizaki in "The Fern Growers Manual" (1975) tells us, "Almost all the ferns in the *Dicksonia* and *Cyathea* families are tree-like and are the tree ferns referred to by most botanists." *Dicksonia* and *Cyathea* families are mostly native to cool, moist uplands, such as those found in New Zealand.

VARIETIES

The most common tree fern in New Zealand is the handsome *Dicksonia squarrosa* (Wheki is its Maori name.). It is easily cultivated, reaching a height of 30 feet with a slender, solitary or clustered trunk. The blackish-brown trunk is very rough from dead leaf bases. The stiff, leathery fronds are carried like a spread hand of cards, high and wide, to six feet or more. A single stem often carries more than one crown and small buds may grow directly from an old trunk. Unlike other tree ferns, stems grow out of the underground and produce a thicket of young plants around the parent.

Wheki thrives near water and damp forests. In swampy areas it is often used to construct walkways where the tips may continue to grow

and produce fronds.

Their harsh fronds drop, forming an orange-brown carpet on the forest floor. In cultivation, old fronds must be cut away annually. This tree fern is suitable for growing in containers.

The **Dicksonia fibrosa** (Wheki-ponga) is distinguished by its massive fibrous trunk — up to 20 inches in diameter at its base and 25 feet in height. It is clothed by a soft, dense mat of fibrous roots. Fronds are numerous, dark-green, in a plate-like crown. Old fronds are persistent, hanging down to form an orange-brown skirt.

The Wheki-ponga is the hardest garden specimen among tree ferns. The Maoris cut the fibrous trunks into slabs to build rat-proof food houses.

New Zealand's **Dicksonia antarctica** is second only to Australia's **Sphaeropteris cooperi** as the most frequently seen tree fern in cultivation. Though it prefers an average winter temperature of about 48 degrees, it has been known to grow in snow. Native also to Tasmania and southeastern Australia, this semi-tender to semi-hardy tree fern thrives with ocean influence or cool humid conditions. The hardest of all tree ferns, it grows slowly to about 15 feet, with dark-green fronds arching three to six feet out from the top of the thick, red-brown, fuzzy trunk. In cultivation, **Dicksonia antarctica** provides a good display after two to three years. It is not, however, for quick effects.

Much faster growing is **Sphaeropteris Cooperi** (formerly **Cyathea Cooperi**), called Cooper's tree fern, also known as **Alsophila australis**, which often occurs in cool, foggy, occasionally icy, cloud forests. It is the biggest of the harder tree ferns and can reach as high as 35 feet. The mature trunks are relatively slender, furry, fibrous and black, covered with dark, chaffy scales. The trees are topped with long, pale-green fronds of eight to ten feet, finely divided and curved toward the ground. The old fronds drop off once or twice a year with a heavy discharge of spores, leaving smooth round spots on the trunk.

This species is hardy to 25 degrees and grows as much as five feet in five years. Cultivated plants seldom form extensive aerial roots and have been known to snap off at the trunk in strong wind storms. They need, therefore, to be planted in a protected spot or in a mobile container.

Another in this family, **Sphaeropteris medullaris** (formerly **Cyathea medullaris**), Black tree fern or Mamaku, is the noblest and tallest of New Zealand tree ferns, growing as tall as 60 feet, with fronds varying greatly in length. Abundant throughout the country except for the drier eastern side of South Island, it thrives in wet areas and particularly in valleys along streams. The black trunk shows a distinctive hexagon leaf-scar pattern. As it matures, this tree fern often acquires aerial root buttresses growing out from the trunk into the air and then turning back into the ground.

Greta Stevenson, in her book, "A Book of Ferns" (1959), says, "The elegant parasol at

the summit of the trunk may be as wide as 40 feet, with numerous large fronds, somewhat harsh to touch, of a dark-green color above and paler green beneath, typically curved and drooping." The young, unrolled fronds rising from the center of the crowns are covered with scales which may be highly irritating to some people.

Mamaku are robust, spring up through scrub, weeds or burned countryside. They transplant easily and grow quickly when reasonably sheltered from frost. To look their best, they also need protection from wind and sun.

The Maori found many uses for Mamaku. They cooked the upper part of the trunk and the stalks of the fronds overnight (possibly in a thermal pool) and ate the cooled, sticky interior. Young fronds were used for poulticing inflamed breasts. The liquid from boiled fronds was used to assist the discharge of afterbirth. Its hairy outer skin was scraped and the slimy tissue rubbed on wounds, poisoned hands, swollen feet and sore eyes — also for saddlesores on horses! The gum of the tree was chewed for diarrhea.

Almost as useful to the Kiwis (and Hansel and Gretel) is **Alsophila tricolor**, Silver tree fern or Ponga, widely distributed through New Zealand. Its brown trunk is covered with persistent rough dead stipes and like Mamaku is buttressed at the base by a dense mass of aerial roots. Fronds are seven to 14 feet long, dull-green above and silvery white underside.

The trees are common in the bush and found in dense groves closely shading the ground and casting a thick carpet of dead fronds. They thrive on higher slopes in the drier parts of the forests but also in scrub and exposed hillsides. In cultivation, they are hardy to 30 degrees but reasonably safe along the coast and warm coastal valleys. Established plants can take the full sun in the coastal fog belt but need partial shade elsewhere.

Besides employing fronds for trail markers, the Maoris used the pith of the Ponga as a poultice for cutaneous eruptions and the trunks for house posts. Today they are commonly used for fence posts.

CULTIVATION

Temperature tolerances must be the first consideration when selecting tree ferns for cultivation. Night temperatures are important as some prefer much cooler nights than days. Some species are very undemanding and sunlight is not essential. In the coastal fog belt, they can stand more sun. Most are tender to frost. All suffer from hot drying winds or low humidity. Frequent watering of tops, trunks, and roots will help pull them through unusually hot or windy weather.

Tree ferns can be used for accent in the garden or as a background for accent plants. If trunks are slender, they may be grown under protective taller trees but space should be provided for crowns to spread.

Plant in shady, moist, but well-drained places. Add peat and sand to heavy soil or replace clay. Avoid overhead water dropping onto crowns.

Put the young tree in a redwood tub, giving it plenty of room, and then move it to a larger tub as the roots grow. It is fun to buy them small — but large enough for the roots to have become established (at least a six-inch pot) and then watch them grow. Leave them in tubs so you can move them about in the garden. "If they start to yellow, they need more shade."

All tree ferns look best if groomed. Remove dead or injured fronds by cutting them off near the ground or trunk, but don't cut back until the new growth begins — old fronds protect the growing tips.

Feed them frequently during the growing season with light applications of an organic-based fertilizer, blood meal or fish emulsion. Mulch with peat moss occasionally, especially if the fibrous roots are exposed by hard rain.

John Ekstrand suggests one-quarter strength nitrogen plant food on a frequent schedule, with every watering if possible. He says they need large amounts of water and food since they grow in high humus areas in their native habitat. Some tropical tree ferns require constant moisture on their trunks to allow roots to stabilize the plant.

Transplanting is best when the trunk is still only one to two feet tall. The hole should be deep enough to hold the height from the bottom of the container to the bottom of the crown. The

entire trunk should be under the soil line.

Once it becomes a mature tree, it can be moved successfully, buried only a foot deeper than previously. Trim away most of the fronds to relieve weight. Ekstrand says that only one large frond and a fiddlehead are all that is needed for photosynthesis. The best time to transplant is Spring or Fall.

If a mature tree tends to lean too far, either lower it into the ground, or box it with potting soil.

Rather than moving established plants, Ekstrand suggests growing from spores and thereafter moving the plant until you arrive at a permanent location. He says not to worry if fronds become burned in the process; new fiddleheads will replace them if given proper care.

Most local nurseries carry a variety of tree ferns. But, if you would like to see them growing in permanent locations, you may view a number of varieties in our own Balboa Park. One area of trees lies between the Fleet Space Theater, around the amphitheater, and against the side of the Casa de Balboa. There are also species on display in the Botanical Building.

As you drive around San Diego, become aware of the many home gardeners who have chosen to "open" parasols in their gardens.

Bess Tittle has recently returned from a trip to New Zealand where she observed these different types of tree ferns.

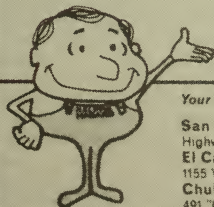
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Orchids Forever

By Lorena O'Connor

Endangered orchid species from the world's tropical rain forests soon will be preserved in a cryogenic gene bank at the University of California, Irvine (UCI).

Established in 1976, the bank is a repository of carefully packaged seeds preserved at subfreezing temperatures. The process keeps the seeds alive for hundreds of years, permitting them to be grown in the future when living species may no longer exist.

Harold Koopowitz, founder of the gene bank, decided to expand the gene bank to include orchids because, "they have tremendous significance within the plant world — both to hobbyists and horticulturalists."

Many species of the orchid family are in danger of extinction because of the destruction of the rain forests in the Amazon and other areas. The forests contain much more than trees and, in fact, comprise 60 percent of the world's plant species — many of which are as yet undescribed. Among these plants are orchids — the largest plant family with 25,000 species.



"While the plight of endangered animals is known by the public," the UCI biological professor notes, "plant species are seriously threatened, and, because animals depend on plants for food, the crisis in the plant kingdom is even more troubling."

Koopowitz is doing what he can to help the situation and to make sure that we'll have orchids forever.

Lorena O'Connor, from Silver Spring, Maryland, is a freelance writer.

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THE 1986 SAN DIEGO FLOWER AND GARDEN SHOW

By Andy Mauro, Floriculture Superintendent
Del Mar Fairgrounds

The San Diego Flower and Garden Show at the Del Mar Fair has evolved over the years to be one of the largest horticultural expositions in the United States. With well over 6,000 individual entries on display, one might think it is an impersonal assemblage where everyone's a stranger and participation involves a great deal of paperwork and hassle.

Nothing could be further from the truth!

We prefer to think we're throwing a garden party for 700,000 of our closest friends. And, like any good garden party, it really is a labor of love for those who plan, organize, and participate in the Flower and Garden Show each year.

My staff and I feel we really have one major responsibility: To make participation in the show as easy and rewarding as possible.

And our exhibitors aren't just the major nurseries and professional floral designers in San Diego. The Flower and Garden Show has categories of competition and display for all whose careers or avocations involve plants or flowers.

Last year, I received a call from a desperate North Park resident about a week after the entry deadline. He had promised his wife before she left on a trip that he would take care of her miniature rose entry, but the time had slipped by. "She'll kill me," he lamented. Given that dire alternative, we had no choice but to bend the rules a bit and accept his late entry.

But, in addition to that six-inch miniature rose, we also had an entry from Cuyamaca College's Horticultural Department. They had called me to begin planning their exhibit a full eight months before the Fair. Perhaps you recall their 1,600-square-foot landscaped mountain scene, complete with waterfalls, babbling brook, two-ton boulders, and grove of 50-foot alder trees. It was right across the aisle from Evergreen Nursery's \$20,000 display of specimen palm trees.

Hauling in the massive amounts of soil required (over 200 truck loads), as well as arranging for the specialized cranes and the manpower necessary to move those boulders and mature trees into place, was a little more involved than finding an extra bud vase for that beleaguered North Park husband.

As you might imagine, there are always some unforeseen problems that crop up during the run of the show. I'm sure the San Diego Bromeliad Society has had second thoughts about the wisdom of using pure white silica sand as a setting for their exotic plants. I suppose we should have anticipated the response this display would elicit

from the many cats who call the Fairgrounds their home.

We like to say we have the best gardening job in the country. What other project can boast of a "staff" consisting of so many of the nation's best landscape architects, horticulturalists, nurserymen, garden enthusiasts, and floral designers?

If you are a member of the San Diego Floral Association, or a member of one of the many affiliated garden clubs or plant societies, there is a very good chance you are already a part of our expert staff. Many of the clubs and societies sponsor exhibits in the show each year. And a great many of you also enter specimen blooms and floral arrangements as individuals. For those of you who haven't yet discovered the fun of being involved with the Flower and Garden Show, this just may be your year.

This year the Flower and Garden Show will feature a special exhibit showcasing the creative talents of our major garden clubs. Entitled "Flowers in Films", this garden club floral scene will be a two-day display using fresh-cut flowers, potted plants, and other accessories arranged to depict the theme of a favorite movie. A different garden club will be featured in each two-day period during the Fair. Details can be obtained from the San Diego Floral Association office or directly from the Flower Show office at the Fairgrounds.

A number of changes are 'on tap' for this year's show. We're planning a special Oriental Gardens section in cooperation with the San Diego and North County Bonsai Clubs. There will be an expanded display of floral arranging, including a unique and very special high-rise display featuring the exciting floral artistry of Rene Van Rems, our celebrated floral coordinator. We would like to showcase some pressed flower art. A number of new categories of landscape competition will be introduced, including "Grandma's Garden", a display featuring plants and accessories in vogue at the turn of the century.

Premium books describing the various categories of display and entry forms will be available in mid-March from both the Floral Association and the Flower Show offices. Entries will be accepted until the first part of May, unless it's a matter of life or death!

We don't profess to be on a first name basis with all of those 700,000 garden party guests, but we would like to get to know you better. You're cordially invited to be a part of the family.

Note: In the January/February 1986 issue on page 21 — "San Diego's Fair" — Andy Mauro's name was written, in error, 'Morrow' instead of 'Mauro'.



Plants in Mid-Air

By Tineke Wilders

Favorite devices

There can be a risk in collecting and nurturing indoor plants: there comes a point when you find yourself competing with your plants for floor space in your own home. Maybe you have plants scattered all over the house, taking up valuable space. But please, don't let that discourage you from adding more greenery to your existing collection. There is an alternative - suspend your plants up in the air.

Hanging plants add another dimension to treasured indoor greenery. The methods are simple and unlimited and I speak from experience. I was frustrated at one time, wanting more plants but not having any space left. I soon found out how much more space you can create for your plants up in the air.

Let me give you some hints and ideas. I will also mention a variety of plants that love to be suspended and will actually grow better and faster.

One of my favorite devices for hanging plants is a sturdy bamboo pole, about two inches in diameter and as long as possible. You can buy these poles in wicker stores and they come in lengths as long as eight feet. They are easy to cut with a saw to any desired length. At your hardware store you can find two or three big S-hooks, the ones you can screw into the ceiling. Then suspend the pole horizontally from the hooks with chain or strong macrame rope. You now have a handsome and inexpensive support for at least half a dozen hanging plants.

A set-up like this looks very attractive in front of a window, especially a bay window, but it can also be used along a wall opposite a window.

By hanging the plants at different levels, you will create a more esthetic look. Changing them around every so often will result in a total different look.

If you prefer to hang plants individually, you can use the handy swivel-type hooks, specially made for hanging plants. They will allow you to easily turn the plants for even exposure.

Make sure the hanging pots have saucers attached to them to catch the excess water. Every plastic hanging pot that you buy, either with or without plant, should include a saucer, so check before you buy.

Tip: Never hang plants too high. If you lose visual contact with the soil level, you won't be able to see when the soil is dry. Warm air rises towards the ceiling, so you will find that hanging plants need more frequent waterings than lower plants.

To create another look for your plants in mid-air, you can use a large, round flat wicker tray. This way, you can arrange a variety of plants - not necessarily all hanging plants - on the tray. Place a few trailing and climbing plants on the outside of the tray for example and the upright growing ones in the middle. I have one such tray, four feet in diameter, which I lined with aluminum foil, so water will not spill on the floor. The tray hangs inside a knotted rope hanger, which is easily made from eight long strands.

If you are in need of some hanging greenery in a dark corner, you can add an incandescent growlight (75 watt) right above the plants. An upsidetown clay pot makes an unusual and appropriate lampshade.

Grow fast

Wooden or glass shelves also lend themselves very well to supporting your plants off the ground. If you attach shelves across a window, plants will be in their element, taking advantage of the daylight. They will grow so fast that soon you won't even need any curtains!

Here are a number of plants that love it up in the air, preferably near an eastern window: Piggyback plant, Hoya or Waxplant, the Chlorophytum or Spiderplant, wandering Jews, golden Pathos, Purple Passion vine (*Gynura*), Asparagus fern, English ivy and Grape ivy.

In a hot, sunny southern window, the interesting succulents, such as the Burro Tail (*Sedum morganianum*) can grow as long as five feet over

the pot rim. The pretty Rosary vine or String of Pearls (*Senecio herreianus*) will love a sunny spot and its strands can grow as long as six feet, which makes it along with the Burro Tail, an ideal plant for a skinny vertical window.

The dainty-looking String of Hearts (*Ceropegia woodii*) produces its pink, lantern-shaped flowers along its strands, which also grow quite long. The little greyish round tubers along the trails can be used to start new plants.

If you are the lucky owner of a skylight, use one single plant, such as a lovely, huge Boston fern or an Asparagus fern to fill up the space underneath it.

You see, there never is an excuse for not bringing home more plants. Enjoy them to the fullest!

Tineke Wilders also writes articles for the San Diego Union Sunday newspaper.



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Cocos Plumosa

As published in California Garden, March 1911

There is a fashion in everything, from ladies' hats to flying machines, and just now **cocos plumosa** is all the style in palms. So badly have some of the citizens of San Diego got the cocos fever that they would uproot everything else in its favor. This is an extreme partisanship that fortunately is not likely to be realized, for it is only when considered as a palm that this growth excites peculiar admiration. In comparison with hundreds of more or less common trees, it is stiff and artificial. However, it flourishes only in a very limited area in the United States and so excites the wonder of the Eastern tourist. It surrounds our Plaza, is planted along the main drive in our Park, crops up in almost every street and garden, and threatens to be quartered on the armorial bearings of the city when they are adopted. Therefore we should know something about **cocos plumosa**. It is a native of Central Brazil and belongs to the same family as the coconut palm, the name of cocos being taken from a Portuguese word meaning monkey, as the coconut is considered to suggest a monkey's face. Under favorable conditions plumosa will reach a height of 50 feet and is a fairly rapid grower, once established. Other members of the family fairly familiar are **cocos australis**, a smaller variety, and **cocos weddelliana**, a very dwarf kind very extensively employed as a potted house plant. In fact, the traffic in seed from Brazil to America and Europe amounts to millions a year.

Cynthia R. Drake

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Broad Leaf Weeds In The Lawn

By Cynthia Drake

Weeds, usually cause a problem in a lawn, but can be greatly reduced by proper selection of the grass for the area, and by providing the proper maintenance. Maintaining an adequate program of irrigation and fertilization for the turf species selected and mowing at the correct height will help to keep the turf stand dense. Early detection and treatment of insect or disease problems aid in maintaining the stand's density. A dense turf can considerably reduce the possibility of weeds.

If broad leaf weeds do develop in a lawn, selective herbicides are used to control many of them. They can be used without injuring the grass due to the physiological differences between the grass and the broad leaf weed.

Annual weeds can be controlled with pre-emergence herbicides. Proper timing of the application is essential. Most applications are done in the early fall and again in the early spring to prevent the weed seeds from germinating.

With the proper selection of turf grass species for the area, coupled with a maintenance program using the correct chemical tools, you can achieve a lush lawn.

Cynthia Drake, a landscape and horticultural consultant, is also a licensed pest control advisor and operator living in San Diego, California.

Smoke Tree

by John A. Armstrong

Where there is smoke, there is usually fire, but not always. One of these exceptions is the handsome shrub, the Smoke Tree, which is rarely seen in California gardens, but which is the joy and the pride of those fortunate gardeners who possess one. Just imagine a rather large shrub . . . which looks like an immense cloud of billowing purple smoke, this "smoke" being a myriad of little flowers on a purplish stemmed panicle. It is a shrub which loses its leaves in the winter, is easily grown anywhere, and does best in a sunny, dry situation.



Blue for the Birds and Bees: Pride of Madeira

By Betty N. Shor

"Put it in the driest spot in your yard and don't water it," said Mr. Berger as I bought a Pride of Madeira (*Echium fastuosum*) at his nursery in Pasadena many years ago. I took his advice, and my shrub thrived and bloomed in a dry corner of my cactus garden in La Jolla. Each year I trimmed the dead flower stalks until the task became onerous — and only then, of course, did I begin to find seedlings. From those I have formed a hedge-row of 'Pride of Madeira' which makes a fine backdrop of blue flower spikes to a foreground of naturalized California poppies in April and May.

'Pride of Madeira' grows into a mounded ten-foot shrub with many branches of gray-green leaves that are long, narrow and slightly hairy. The lower leaves dry and drop as the branches grow outward. Flower spikes extend up to 18 inches beyond the foliage from April to June; they are covered with small flowers that are usually deep blue, sometimes purplish, occasionally toward pink or lavender. In the San Diego area, seedlings start sprouting after the first fall rains; with light watering in the summer they may grow to three feet high and bloom from the second year onward. Established plants survive well on our normal rainfall.

The branches of this shrub are brittle, easily broken by hand if one wants to shape it into a tree form. Eventually (say, ten years), the

plant may become top-heavy and susceptible to toppling in a heavy wind; pruning out some branches helps. It is also fairly easy to break off an entire older shrub and then replace it.

Some growers start this plant from cuttings, but I find it easier to transplant natural seedlings or to start seeds directly. Transplants wilt immediately (often including ones from a nursery pot if the roots are damaged), but they revive within about three weeks if watered thoroughly.

'Pride of Madeira' is recommended for controlling erosion on slopes; the roots are shallow and spreading. It tolerates poor soil but needs good drainage in any location.

Echium fastuosum is in the family **Boraginaceae**. Its species name from the Latin means "stately," — very appropriate. Like its relative borage (*Borago officinalis*), it is a favorite with bees, especially bumblebees, in vast numbers in my yard. (According to entomologist David Faulkner of the San Diego Natural History Museum, bumblebees have been recovering from the earlier onslaught of DDT.) Anna's hummingbirds also skim up and down the flower spikes, apparently not aware that some people think that these birds are not attracted to blue flowers. The hooded oriole also chatters its way nervously among the branches.

The common name is misleading, because 'Pride of Madeira' actually comes from the Canary Islands, off the northwest coast of Africa and five degrees south of the island of Madeira. (Other species of *Echium* do come from Madeira.) The climate of the Canary Islands is warm and very dry (5 to 15 inches of rain). Among the 300 indigenous plants are the dragon tree (*Dracaena draco*), various species of *Sempervivum*, many species of *Euphorbia*, and, at higher elevation, the Canary pine (*Pinus canariensis*). A wild form of the canary bird is also found in the islands, not as colorful as its caged descendants.

The late Fritz Berger, from whom I bought my first 'Pride of Madeira', had a small nursery of cacti and succulents in Pasadena in the 1950's and later. His cash crop was *Aloe vera* in great quantity. He cultivated friends as well as plants, and I remember, when we lived in Pasadena, he phoned one evening to say that his night-blooming *Cereus* was opening. A group of us watched that magic show in his garden. Fritz's father was Alwin Berger, who had been director of the Hanbury Gardens in Italy. The son was proud that *Bergerocactus* from northern Baja California (and maybe still in San Diego County) had been named for his father.

I remember Mr. Berger fondly when my 'Pride of Madeira' bursts into bloom and brings passers-by to my door to ask what it is.

Betty Shor, one of the many "small growers" in this area, wrote about *Bulbine caulescens* in an earlier issue of CALIFORNIA GARDEN.

Evaluation of Fresh Tomatoes

FOR URBAN GARDENERS

UC SOUTH COAST FIELD STATION
AND UC RIVERSIDE, 1985

By Dennis R. Pittenger
Extension Urban Horticulturist
and
Douglas Holt
Staff Research Associate
University of California, Riverside

Introduction and Purpose

Urban gardeners frequently have difficulty in producing acceptable tomatoes for fresh use because the varieties they obtain are not locally adapted. This project is designed to identify well-adapted tomato varieties for use by urban gardeners in coastal and inland valley areas of southern California. Important criteria for judging cultivar performance included in this study were total yield, numbers of larger fruit, percentage of quality fruits and general plant and fruit characteristics.

Support

Seed samples were provided by Petoseeds, Inc., Ferry-Morse Seed Company, W. Atlee Burpee Co., Otis Twilley Seed Company, Ball Seed Company and Park Seed Company. Other equipment and supplies were purchased with programmatic funds or obtained from residues of other research work. Much of the labor for soil preparation, crop protection and harvesting was provided in-kind through university research facilities.

SOUTH COAST FIELD STATION TRIAL

Methods and Procedures

Six hybrid tomato cultivars were grown under stake culture and drip irrigation in a randomized complete block design to evaluate their production performance. They included four large-vined varieties and two compact-vined varieties selected on the basis of their observed performance in previous trials. The cultivar American Beauty (7718VF, Petoseed) served as a standard of comparison for the cultivars Freedom (Twilley), President (Petoseed), Champion (Ball), Celebrity (Petoseed) and Jet Star (Harris Moran). Each selection possessed Verticillium and Fusarium wilt resistance, and President, Champion and Celebrity also possessed root knot nematode and tobacco mosaic virus

resistance. All varieties were established from seed in a greenhouse at the field station to make transplants that were set in the field on May 2.

The planting consisted of four replicates of three rows 18 feet long for each variety with an in-row plant spacing of 18 inches and a row spacing of 7-1/2 feet on center. Fertilizer was applied to the plant row before transplanting using ammonium phosphate (16-20-0) at a rate that provided 50 lbs. of nitrogen per acre. Additional fertilizer was applied as a sidedressing of ammonium phosphate two weeks after transplanting at a rate that provided 100 lbs. of nitrogen and as injections into the drip irrigation system at weekly intervals once early fruits began to increase in size until a total of 180 lbs. had been applied. Weed control was accomplished with pre-plant incorporation of Devrinol plus four shallow cultivations at monthly intervals.

Plants from the middle row of each replicate were harvested once per week for six weeks and the fruit weight, size, estimated percentage of number one fruit, major defects and other important observations were recorded. All fruit showing any degree of coloration were harvested at each date. Observations regarding plant size and vigor were also documented.

Results and Discussion

The yield data are summarized in Table 1 on a per plant basis. For marketable yield, Celebrity produced significantly more fruit by weight than four other varieties. It was also one of the top three varieties with respect to percent of larger sized fruit along with Champion and President; however, fruit size in this trial was very good with each variety producing a relatively high percentage of larger fruit. There was a wider range between the largest and smallest yielding varieties (by weight) than in many previous trials. Four cultivars produced a high percentage of

Table 1
YIELD PER PLANT
URBAN GARDEN TOMATO VARIETY TRIAL
UC SOUTH COAST FIELD STATION 1985
(6 Weeks Harvest)

| VARIETY | LBS* | MARKETABLE FRUIT | | | | PRIMARY DEFECTS |
|-----------------|---------|------------------|------------------|----------------|--------|---|
| | | NO. | % Larger SIZE ** | Est % #1 FRUIT | % CULL | |
| Celebrity | 15.4 a | 41.2 | 57.5 a | 85 | 7.5 | Green shoulder; heat discoloration; shape |
| American Beauty | 12.8 ab | 37.1 | 44.8 c | 85 | 14.0 | Heat discoloration; shape |
| Champion | 12.6 bc | 36.8 | 55.0 ab | 85 | 13.3 | Cracks; heat discoloration; size |
| Jet Star | 11.2 bc | 34.8 | 48.5 bc | 90 | 13.3 | Heat discoloration; shape |
| President | 10.8 bc | 29.6 | 58.8 a | 70 | 22.0 | Radial cracks; shape; heat discoloration |
| Freedom | 10.0 c | 31.9 | 43.0 c | 70 | 20.3 | Shape; heat discoloration; radial cracks |

* 5% level of significance

** U.S. Extra large and larger (minimum of 2–28/32 inch diameter)

Table 2
PLANT SIZE AND GROWTH HABIT
URBAN GARDEN TOMATO VARIETY TRIAL
UC SOUTH COAST FIELD STATION 1985

| VARIETY | HEIGHT | HABIT | COMMENTS |
|-----------------|--------------|------------------|---|
| Celebrity | Med-Tall | Semi-determinate | Stake required, dense plant, very vigorous |
| Jet Star | Very Tall | Indeterminate | Stake required, large dense plant, very vigorous |
| American Beauty | Tall | Semi-determinate | Stake required, dense foliage, vigorous plant |
| President | Compact | Determinate | Stake optional, large bush, good foliage cover over fruit |
| Freedom | Very Compact | Determinate | Staking optional, small dense bush, some fruit exposed to sun |
| Champion | Very Tall | Indeterminate | Stake required, large dense plant, very vigorous |

number one quality fruit, but President and Freedom produced only moderate numbers.

The varieties Freedom and President began and stopped producing about seven days earlier than the others. This performance would be expected since both are determinate in growth habit. In general, the length of the harvest period was much shorter than expected (six weeks), due in large part to the development of severe curly top and spotted wilt virus infestations in most replicates of each variety. The virus problems were well developed in the two determinant varieties (Freedom and President) by mid-July, but did not become serious in the remaining varieties until early to mid-August. Fruit and plants were both heavily damaged in each instance, and this was the primary reason that the cull percentage was moderate to high for most varieties. The other major defects of the culls were fruit that was too small and fruit with blossom end rot. Defects in edible fruit were due mainly to high temperatures and virus discoloration.

Observations of plant size and growth habit are summarized in Table 2. From a management and training viewpoint, Freedom and President would require the least amount of attention while Jet Star and Champion would require the most. The other varieties would need to be supported in most situations, but their habit lends itself to be easily trained to stakes, poles or cages.

When the key criteria of yield, percentage of larger fruit and general fruit attributes are

considered as a whole, Celebrity stands alone as the "best" variety in this trial. American Beauty, Champion and Jet Star followed closely as second best, and President and Freedom comprised the third grouping. It must be noted that all varieties would be acceptable for urban gardeners, however. Also, a grower must consider whether or not a variety that requires staking and has a shorter production period is appropriate as he or she judges a given variety. If these attributes are more important, then President and Freedom would rank higher.

UC RIVERSIDE OBSERVATION TRIAL

Methods and Procedures

In order to evaluate the potential of additional cultivars and compare their performance under inland growing conditions, an observation trial of 13 cultivar was conducted that included Whopper (Park), Beefmaster (Petoseed), Big Boy (Burpee), Champion (Ball), Floramiera (Petoseed), Celebrity (Petoseed), Heavyweight (Petoseed), Early Bush 76 (Petoseed), Bigset (Petoseed), Jet Star (Harris Moran), Independence (Twilley), Bingo (Ferry-Morse) and Early Pick (Burpee). Plants were established from seed in a greenhouse to make transplants that were set in the field on April 29. Two replicates of ten plants set 18 inches apart in rows five feet on-center were established for each variety. The planting was irrigated with a drip system and

Table 3
RATINGS OF TOMATO CULTIVARS
OBSERVED AT UC RIVERSIDE, 1985

| VARIETY | Overall RATING | COMMENTS |
|---------------|-------------------|--|
| Celebrity | Good | Best production in trial, high percentage of large fruit, good vigor, large semi-determinate plant, well adapted, fruit firm. |
| Jet Star | Good | Large indeterminate, vigorous, good production of medium-large attractive fruit, fruit soft. |
| Florameric | Good | Compact, semi-determinate, but needs support, good production with many larger fruit, not as attractive as some others. |
| Early Bush 76 | Good | Large, compact with support needed, continuous production with many large fruit, susceptible to cracking. |
| Champion | Good | Vigorous, tall, good production of medium-large attractive fruit, steady production through season. |
| Early Pick | Good | Medium to tall with good vigor, fruit size medium, early producer. |
| Whopper | Good | Very large indeterminate, good production of medium-large attractive fruit. |
| Bigset | Good | Semi-determinate, large for staking, good production of medium-sized fruit. |
| Bingo | Fair | Large determinate bush with support optional, good production of medium size fruit, high incidence of cracking and yellow heat discoloration of fruit. |
| Independence | Fair | Very compact, moderate to large production of medium-large sized fruit, susceptible to cracking, early producer. |
| Big Boy | Fair | Indeterminate and tall with fair vigor, moderate to low production of medium-sized fruit. |
| Heavyweight | Fair | Large indeterminate, vigorous, moderate production of good-sized fruit. |
| Beefmaster | Poor | Large indeterminate, vigorous, small production and fruit poorly-shaped but large. |

grown with stake culture. Weed control was obtained with Treflan at 0.75 lb/A applied over the row area before planting and then incorporated. No preplant fertilizer was applied based upon soil test results. Supplemental fertilizer was applied through the irrigation system about two weeks and eight weeks after transplanting to provide 50 lbs. of nitrogen each time.

After the second application, nitrogen continued to be supplied at the rate of 10 lbs. every two weeks through August so that a total of 150 lbs. of nitrogen was applied to the planting for the season.

Fruit was harvested three times during the peak of summer production and the fruit yield, size, estimated grade, and primary defects were recorded. Observations of plant size and characteristics were also recorded periodically.

Results and Discussion

The ratings of the 13 tomato varieties are presented in ranked order in Table 3. Total yields were low again this season due primarily to extremely hot weather from late June through mid-July. This was a good test for varietal adaptation to high temperature and drought stresses. Some of the cultivars rated fair did recover and perform well in September when more moderate temperatures arrived.

The cultivars Celebrity, Jet Star and Florameric performed very well and will serve as standards of comparison for others in the future because of their consistent performance. Other varieties rated "Good" were Early Bush 76, Champion, Early Pick, Bigset and Whopper. This was the second such performance for Early Pick, so it appears to be well-suited for use by urban gardeners. It was only the first such rating for the other cultivars, so additional evaluation will be required to determine the consistency of their performance. Bingo, Independence, Big Boy, and Heavyweight rated "Fair," while Beefmaster was rated "Poor." The first four varieties will be considered for future evaluations.

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Southland Home Gardeners Have Many Good TOMATO VARIETIES

By Forrest Cress

RIVERSIDE — Finding a tomato variety that will produce high yields of vine-ripened quality fruit should pose no problem to the Southland's home gardeners, University of California findings show.

More than 30 tomato varieties have been field evaluated in Southern California the past four years by Dennis Pittenger, UC Cooperative Extension urban horticulturist at UC Riverside. Many have performed well, he reports.

His test sites have been at UCR (inland valley climate) and at the UC South Coast Field Station (coastal climate) in Irvine. Evaluation criteria included yield, number of large fruit, quality of fruit and plant growth characteristics.

Best overall in his 1985 trials at the South Coast Field Station were 'Celebrity' and 'American Beauty'. Other varieties included in the evaluation were: 'Champion', 'Jet Star', 'President' and 'Freedom'. All of them would be acceptable for urban gardeners, according to Pittenger.

Here's how he rates the overall performance of the 13 varieties tested at UCR last year:

GOOD: 'Celebrity', 'Jet Star', 'Floramerica', 'Early Bush 76', 'Champion', 'Early Pick', 'Whopper', and 'Bigset'.

FAIR: 'Independence', 'Big Boy', 'Heavyweight', and 'Bingo'.

POOR: 'Beefmaster'.

Most of the varieties included in his evaluations are available to home gardeners in seed packets and/or as transplants through local garden centers, nurseries, or mail order gardening catalogs.

Pittenger's field research is part of a larger statewide UC Cooperative Extension project aimed at identifying tomato varieties well-adapted for use by home gardeners in the different climatic zones of California. Cooperative Extension has conducted similar evaluations in San Diego, Monterey, San Jose and at UC Davis.

Late this summer, Pittenger hopes to conduct a final field trial at the South Coast Field Station that would include the 25 to 30 best performing varieties the past four years. "By the end of 1986 or early 1987," Pittenger says, "we plan to have comprehensive recommendations for home gardeners and plant and seed suppliers on the best tomato varieties for different locations in California."

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Book Reviews

By Mary Lou Orphey

IN AND OUT OF THE GARDEN, Book of Days by Sara Midda. 1984. Workman Publishing Company, Inc. 1 West 39 Street, New York, N.Y. 10018. 6½ x 8½ in. 86 pages. Hardcover. \$15.95.

This is a whimsical, cloth-covered book with a ribbon page finder. It is especially suitable for use as a personal diary, for thoughts about the day, observations about one's garden or nature. It is a perpetual diary and can be used for many years. There is a section for names and addresses.

There are many charming little sketches of fruits and flowers and pictures all done in soft pretty colors. The book is filled with little verses and thoughts such as: "The higher the plum tree, the riper the fruit", "When ant hills are unusually high in July - the coming winter will be hard and long" and "George Washington's cure for colds was to eat a toasted onion before bed".

Winterthur's TWELVE MONTHS OF FLOWERS by The Henry Francis du Pont Winterthur Museum. 1985. A Galison Book published by GMG Publishing Corp., 25 West 43rd Street, New York, N.Y. 10036. 8 x 10½ in. 32 pages. Hardcover.

Winterthur is a museum located on the former estate of Henry Francis du Pont in Delaware. The twelve months of flowers were originally published as prints around 1745 by John Bowles of London. Each print is a charming arrangement of flowers. The flowers are numbered and the corresponding list is at the bottom of each print.

This calendar is suitable for many years of use. The days of each month are numbered, but the day of the week is not specified, so this calendar can be used for noting birthdays and other important occasions. This book would make a special gift for a special person.

Color Chart Available

The Colour Chart which has been out of print for a number of years is due to come back into print during January 1986, and will retail at £25 sterling which includes surface mail postage charges.

Do not send remittance but notify R.H.S. Enterprises Limited to reserve your copy.

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The Overlook Guide To WINTER GARDENS by Sonia Kinahan. 1985. The Overlook Press, Lewis Hollow Road, Woodstock, New York 12498. 7½ x 10 in. 144 pages. Hardcover. \$18.95.

The winter season can be bleak for anyone living in Zone 6. Find out how to keep one's garden in flower from November through March. The monthly diary for these months includes plants the author has found suitable for providing color in the garden and how to protect them from inclement weather.

There are special chapters on tender shrubs and plants, shrubs and plants for sunny or shady walls, and one hundred principal plants for the winter flowering garden. Also included is a list of gardens and nurseries for purchasing these plants. The list of gardens open throughout England, Scotland and Ireland in the winter is of interest to travellers.

Whether living in Zones 5, 6, or 7, or in other climates, this is a fascinating story about one gardener's successful struggle to provide a colorful winter garden.

MCCALL'S HOUSEPLANT AND INDOOR LANDSCAPING GUIDE by Herbert Leavy. Artwork by Joseph Dolce. 1985. Published by Harmony Books, a division of Crown Publishers, Inc., One Park Avenue, New York, N.Y. 10016. 6 x 9 in. 154 pages. Paperback. \$7.95.

There is a wealth of sensible advice about growing healthy houseplants in this handy paperback. The tips on what to look for when purchasing houseplants may save endless hours of struggling with sick plants. The care of houseplants is discussed. The good diagrams of insects are especially helpful.

The directory of more than 170 houseplants is organized by common name alphabetically. Information given for each plant is: the botanical name, family name, origin, description, plant type, and overall care rating. Further information on each plant is proper care requirements: light, temperature, water, humidity, soil, food, propagation, potting, common pests and ailments, and pruning.

This is a well-written, easy to read reference book. Take it shopping with you.

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The House & Garden Book of BEAUTIFUL GARDENS ROUND THE WORLD by Peter Coats. 1985. First published in Great Britain in 1985 by George Weidenfeld & Nicolson Ltd., 91 Clapham High Street, London SW47TA. Little, Brown and Company, Boston, Toronto. 8 3/4 x 11 1/2 in. 208 pages. Hardcover. \$29.95.

One can think of many adjectives to describe this book - wonderful, entertaining, exciting . . . Not only is Peter Coates a renowned garden designer and Garden Editor of HOME AND GARDEN, he is a gifted professional photographer and excellent writer as well. The text is flavored with his personal observations and experiences. There are beautiful color photographs on every page. The author explains the historical evolution of gardens developed over past centuries to the present, taking into account the premier landscape designers of yesteryear, personalities, writers and musicians who are an integral part of the time.

More than sixty spectacular gardens from twenty-two countries are represented. We see the Mogul pleasure grounds of New Delhi, the Kirstenbosch gardens in South Africa, the Paleis Het Loo in Holland, and the Chateau de Champs in France, to name a few. Not all of the gardens are well-known. American gardens included are the Magnolia Gardens near Charleston, the Ladew Garden near Monkton in Maryland, the garden at Dumbarton Oaks outside Washington, Agecroft Hall in Virginia, and Villa Biscayne on a strand of Biscayne Bay, Florida.

Anyone who delights in living beauty will spend many enjoyable hours with this special book. **BEAUTIFUL GARDENS ROUND THE WORLD** is a gift to San Diego Floral Association Library from Las Jardineras in memory of Nancy Martin.

THE MACMILLAN BOOK OF ORNAMENTAL GARDENING by Otto Hahn. 1986. Collier Books, Macmillan Publishing Company, 866 Third Avenue, New York, N.Y. 10022. 5 x 7 1/2 in. 128 pages. Paperback. \$6.95.

This guide is a good tool to use before the spade or shovel. Careful planning is critical to successful planting. Aspects of planning discussed are the environment, size of the garden, topography, location, light and soil, water conditions and eventual care. There is advice on soil preparation and requirements, and choosing and purchasing plants. There are additional tips on fertilizing, pruning and trimming.

Ornamental plants are a good foundation to any garden. This paperback on ornamental gardening describes over a hundred plants by genus and species, and there are full color photographs of each plant. Information on the mature height, diameter, recommended type of soil and blooming season is included as well as origin, characteristics, varieties and species and recommendations. There is a lot of information packed into this small paperback.

THE MACMILLAN BOOK OF ORGANIC GARDENING by Marie-Luise Kreuter. 1986. Collier Books, Macmillan Publishing Company, 866 Third Avenue, New York, N.Y. 10022. 5 x 7 1/2 in. 128 pages. Paperback \$6.95.

Anyone the least bit interested in learning about organic gardening will benefit from this colorful, practical paperback. It is written primarily for the "greenhorn", but even dyed-in-the-wool organic gardeners will benefit from reading this book.

Subjects discussed are: What the Earth is Made of, Compost, Mulching, Spadework, Fertilizers, Crop Rotation and Planting, and Pest Control. There are also chapters on The Herb Garden, The Strawberry Patch, Wild Berries in the Garden, and Berry Bushes.

The book makes a strong statement in favor of organic gardening; it might be wise for all gardeners to read it as food for thought.

THE MACMILLAN BOOK OF NATURAL HERB GARDENING by Marie-Luise Kreuter. 1986. Collier Books, Macmillan Publishing Company, 866 Third Avenue, New York, N.Y. 10022. 5 x 7 1/2 in. 128 pages. Paperback \$6.95.

Natural methods of care and fertilizing are discussed in this useful book on herb gardening. There is advice on how to harvest and preserve herbs.

The groups of annual, biennial and perennial herbs are arranged alphabetically by common name. The origin, botanical description, cultivation, harvesting, preserving, and color photographs are included for each of the approximately seventy herbs. There is a brief guide to herbs noting the important ingredients, fragrance, taste, use as a seasoning, medicinal effect and use as a home remedy.

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BEGONIAS: Margaret Lee

Start new plants from cuttings, leaves, or seeds.

Protect roots with a mulch.

Clean all pots and plantings of dead wood, leaves and old blooms.

Cut back plants when new growth appears: prune no more than 1/3 of the plant at one time to avoid shock.

Start feeding - give $\frac{1}{4}$ strength of any good all-purpose plant food if feeding once a week; $\frac{1}{2}$ strength if twice a month; full strength if once a month.

Keep up a watering program if not enough rain. Plants should be moist but not wet.

Start in March tuberous begonias in sprouting medium -- moistened leaf mold and sand; keep barely moist and in a warm place. Pot those started earlier, if ready, in a 9-inch pot.

BONSAI: Dr. Herbert Markowitz

Watch watering program if there is insufficient rain.

Repot plants; shape to conform to the containers.

Remember deciduous flowering plants need repotting every year, except quince. Conifers may go 3 to 5 years.

Graft deciduous plants.

Add small amounts of chelated iron or acidifying preparations to correct alkaline (salt) buildup.

Watch for aphids and other pests.

Wait until April to feed - use high nitrogen fertilizer for foliage growth; high-phosphorous type to set flowers and fruit.

Use $\frac{1}{4}$ strength fertilizer spaced several weeks apart rather than using full strength only one time. Measure accurately. Too much fertilizer can burn roots and cause leaf damage.

BROMELIADS: Linda Prell

Check plants for snails and slugs; distribute bait around the plants (not in cups).

Repot plants that have outgrown their containers.

Remove pups that are at least 1/3 size of mother plants.

Begin feeding plants as the warmer days signal the beginning of growing season. Use a balanced fertilizer at $\frac{1}{4}$ strength once a week (in a regular watering schedule if using liquid).

CACTI & SUCCULENTS Verna Pasek

Start watering as new growth starts.

Fertilize with 10-10-10 to promote flowering.

Watch for pests such as mealybugs under leaves - control with equal parts of alcohol and water dabbed with cotton swabs.

Propagate plants from divisions and cuttings.

Repot overgrown or root-bound plants; use a screen in bottom of pot with gravel or broken clay pieces to avoid washing out soil and nutrients.

Protect delicate succulents from aphids; may use malathion.

CAMELLIAS Benjamin Berry

Maintain a regular watering program.

Transplant those plants not done last month.

Use only 1/3 strength fertilizer, if needed now.

Protect late blooming varieties from any hot sun as much as possible.

Maintain a regular spraying program and dust with chlordane under and around plants to discourage leaf beetles.

Remember not to fertilize a newly transplanted bush, but water well and use Vitamin B1 solution.

Feed iron every other month to promote healthy deep green foliage.

DAHLIAS Abe Janzen

Prepare the planting area by adding humus and fertilizers. Use 2½ lbs. of super-phosphate and 2½ lbs. of sulfate of potash per 100 feet.

Place tubers in starting medium such as vermiculite or sand. Keep in a warm place to sprout; beware of too much moisture.

Plant sprouted tubers, sprout-side up, 6 inches below ground surface, 2 inches from stake, and cover with 2 inches of soil.

Moisten but do not keep wet.

Protect new growth from snails.

Be sure to drive stake into ground before planting tubers.

EPIPHYLLUMS (Orchid Cacti) Frank Granatowski

Maintain good grooming by removal of dead, spindly and unsightly branches.

Remove dead leaves and debris from containers, eliminating a haven for harmful pests and allowing free flow of oxygen to the soil and root system.

Remove scale residue clinging to outside of containers.

Give mature plants a final feeding of nitrogen-free fertilizer, such as

Bloom-Builder or Hi-Bloom, to promote healthy buds and blooms.

Watch new buds and blooms for aphids and ants attracted by the nectar; if necessary, insecticides such as Orthene and malathion may be used. Carefully read and follow directions.

Refrain from relocating plants once buds have begun to form.

Bait for snails - a few granules of Sluggeta have proven effective when placed at base of plants, leaving little or no residue.

FERNS Ray Sodomka

Fertilize with high nitrogen liquid or pellets.

Remove dead fronds.

Divide, repot, or add leaf mold to those plants needing it.

Spray for aphids and scale.

Plant spore.

Catch rain water to use on plants in covered areas.

Maintain humidity by keeping surrounding area damp.

FUCHSIAS William Selby

Pinch back those plants that were cut-back in November or December to force new growth and branching.

Prune those plants not done before - it still is not too late.

Feed regularly with a balanced fertilizer.

Remember never fertilize a dry plant or one in full sun.

Check for insects - but do not spray unless necessary.

Top-off containers with potting mix where it has been washed out.

Maintain a good watering program - plants like to be moist but NOT wet.

GERANIUMS Carol Roller

Water thoroughly when plants become somewhat dry. Allow excess water to drain away. Keep foliage as dry as possible.

Continue a pest control and disease prevention program using products according to the manufacturer's directions.

Continue feeding a balanced fertilizer dissolved in water, using at half the recommended strength as often as needed to keep plants growing well.

Selectively prune and pinch zonals and ivies for future bloom. Avoid cutting regals and scented because their flowers will be lost by pruning at this time.

Remove faded flowers and old, discolored leaves.

Continue to rotate plants for symmetrical shape.

GESNERIADS (African Violets, gloxinias, etc.)

Mike Ludwig

Practice good housekeeping by keeping growing

areas and plants clean. Trim, repot, and check for pests.

Water and fertilize more as active growth begins.

Repot root-bound plants; cut off all dead roots that look brown and soft.

Trim plants and take cuttings.

Spray growing areas for mildew and mold.

Spray for aphids before new growth starts; bait for slugs and snails.

Fertilize in April with trace elements if plants were not repotted earlier. This will replace elements lost in watering.

Have fresh soil ready for planting seedlings and to use in transplanting.

HEMEROCALLIS (Day-lilies)

Southwest Hemerocallis Society

Divide overgrown plants before hot weather.

Replant in well-prepared soil with plenty of humus.

Fertilize established plants with a fertilizer of 1-1-1 ratio (such as 6-6-6) or a 1-2-1 ratio (such as 5-10-5). Do not feed new plantings until they have become established.

Control aphids if necessary.

IRIS San Diego-Imperial Counties Iris Society

Start feeding low-nitrogen, all-purpose, or liquid fish fertilizer.

Water regularly if no rain.

Clean beds and keep weeds under control.

Watch for pests - systemic sprays applied as a drench will usually free iris of aphids and thrips.

Give Japanese and Louisiana acid food: a camellia-type fertilizer is convenient to use.

ORCHIDS Charlie Fouquette

Move cymbidiums into a protected shaded area as they come into bloom.

Feed cymbidiums with a 30-10-10 fertilizer and give them as much light as possible without burning the foliage for better flowering next season.

Repot cattleyas that are showing new "eyes".

Check moisture in pots of phals and cattleyas - do not be fooled by gray overcast days. **Be extra careful** when watering phalaenopsis so water does not remain in the crown overnight.

Be alert for cold drafts or sudden temperature drop that causes bud blasting.

Check for slugs and snails, especially after a rain.

Water early in the day so plants will be dry by nightfall.

Feed mobile dendrobiums diluted Hi-Bloom if buds are starting at leaf node (joint).

ROSES Brian Donn

Feed established bushes with a balanced rose food every 3 to 4 weeks, except when in full bloom.

Give newly planted bushes that seem to be growing slowly, a root-stimulant such as Hormex or SuperThrive.

Water generously, weekly if rainfall is light.

Keep foliage beautiful, control disease and pests. Orthene and Funginex, which can be mixed and applied in one application, may be used about every ten days. These may also be used to eliminate thrips which cause brown "freckles" and streaks on petals.

VEGETABLES George James

Get started plants of Brussels sprouts, broccoli, cabbage, cauliflower, celery, kale, onions, lettuce, and collards.

Start seeds of beans, corn, cucumbers, eggplants, peppers, summer squash, and tomatoes in pots in a warm place. Plant in the garden in April and May.

Plant onion sets and cloves of garlic.

Protect seedlings from any frost and rain with translucent covers.

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Notice for Students

The Los Angeles County Department of Arboreta and Botanic Gardens will offer a summer of practical horticultural experience to about 25 qualified students this year. Interested students enrolled in botany, horticulture, forestry or related courses should apply for the paid internships by March 15.

During the 10-week internships students will be assigned to one of three public gardens operated by the department: the Los Angeles State and County Arboretum in Arcadia, Descanso Gardens in La Canada or South Coast Botanic Garden in the Palos Verdes Peninsula.

The wide range of training the students encounter fulfills the internship requirements at most schools and universities. Although the programs differ at each garden, in general students will participate in "hands-on" training sessions that include nursery management, equipment maintenance, plant propagation, pruning and irrigation installation.

Students may apply either by telephoning Janice Golden, personnel officer, at (818) 446-8251 or by mail. Send a resume, three letters of recommendation and a letter describing qualifications to Ms. Golden at the Department of Arboreta and Botanic Gardens, 301 N. Baldwin Ave., Arcadia, CA 91006.

GREEN THUMB ITEMS

Prune spring-flowering shrubs and trees. Use the branches for arrangements to enjoy in the home. After blooming, mulch with leaf mold and manure and water well.

Finish planting bare-root trees and shrubs in March.

Coat back poinsettias, removing all last year's growth to within two joints of the old wood.

Divide chrysanthemums. Make divisions and take cuttings from old plants.

Set out annuals such as zinnias, pansies, marigolds, and petunias, for spring and early summer color.

Tie up foliage of daffodils and narcissi for neatness. Do not cut off until it has withered and dried; leaves feed bulbs for next season's flowers.

Feed nearly everything in March and April.

Feed lawns in April.

San Diego Rose Society



San Diego's magic world of ROSES will be displayed on April 12 and 13, Balboa Park Club. Everything is made for nostalgia and giving back roses, with the theme "THROUGH THE YEARS WITH ROSES." Artistic arrangements will include "Timeless Beauty," "Garden Gems" (Mini), "It's Dinner at Eight" (Table Setting), "Meet Me at the Garden Gate" (Ada Perry), and "Mystic Interlude" (Oriental). Also, Rose Specimen Classes will excite your sense of beauty. Come and partake of our ALBUM OF ROSES SHOW.

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AFFILIATE MEMBERS

ORGANIC GARDEN CLUB, SAN DIEGO

Pres: Mr. Lee Bennett 748-4340
13271 Wanesta Drive
Poway, CA 92064
3rd Fri., Casa del Prado, 7:30 p.m.

PALOMAR CACTUS & SUCCULENT SOCIETY

Pres: Mr. Frank Lapick 753-2892
2602 La Gran Via
Carlsbad, CA 92008

**PALOMAR DISTRICT
CALIFORNIA GARDEN CLUBS, INC.**

Dir: Mrs. Alvin F. Putnam 749-9587
15665 Fruitvale Road
Valley Center, CA 92082

PALOMAR ORCHID SOCIETY

Pres: Ted Pinger 436-2326
457 E. Glaucus
Leucadia, CA 92024
2nd Fri., Vista Senior Citizen Center,
7:30 p.m.

POINT LOMA GARDEN CLUB

Pres: Mrs. G. William Dunster 222-9690
411 San Remo Way
San Diego, CA 92106
2nd Wed., Westminster Presby. Church
Talbot & Canon, 10:00 a.m.

POWAY VALLEY GARDEN CLUB

Pres: Mrs. Matt Sokach
P.O. Box 381
Poway, CA 92064
2nd Wed., Hally's Garden Room
13519 Poway Rd., Poway, 9:00 a.m.

SAN CARLOS GARDEN CLUB

Pres: Mrs. Paul Hebert 463-7517
6450 Lake Shore Drive
San Diego, CA 92119
4th Tues., Home of Members, 9:30 a.m.

SAN DIEGO BONSAI CLUB, INC.

Pres: Mr. Stan Childs 583-0562
5460 Baja Drive
San Diego, CA 92115
2nd Sun., Casa del Prado, 1:00 p.m.

**SAN DIEGO BOTANICAL GARDEN
FOUNDATION, INC.**

Pres: Mr. Harry C. Haelsig 582-0536
4750 55th Street
San Diego, CA 92115

SAN DIEGO BROMELIAD SOCIETY

Pres: Mr. Jack Percival 222-7327
5205 Kearney Villa Way, Suite 210
San Diego, CA 92123
1st Thurs., Byzantine Catholic Church
2235 Galahad Rd., Serra Mesa, 8:00 p.m.

**SAN DIEGO CACTUS & SUCCULENT
SOCIETY**

Pres: Dr. Leroy Phelps 280-9690
4094 36th Street
San Diego, CA 92104
2nd Sat., Casa del Prado, 1:30 p.m.

SAN DIEGO CAMELLIA SOCIETY

Pres: Mr. Palmer Groenwald 291-8912
1139 Madison Ave.
San Diego, CA 92116
3rd Wed., Casa del Prado, 7:30 p.m.

**SAN DIEGO COUNTY BRANCH
NATIONAL FUCHSIA SOCIETY**

Pres: Janet Wright 722-3373
610 N. Nevada Street
Oceanside, CA 92054
2nd Thurs., Palmquist School
1999 California St., Oceanside 7:00 p.m.

SAN DIEGO COUNTY DAHLIA SOCIETY

Pres: Mr. Martin Walsh 277-5165
4077 Mt. Everest Blvd.
San Diego, CA 92111
4th Tues., Casa del Prado, 7:30 p.m.

SAN DIEGO COUNTY HERB SOCIETY

Pres: Mrs. H. Chandler 745-7713
151 Gayland, No. 51
Escondido, CA 92027
2nd Sat., Homes of Members, 11:00 a.m.
(No meetings in July or August.)

SAN DIEGO COUNTY ORCHID SOCIETY

Pres: Mrs. Richard Bechtel 442-7180
10212 Vista de la Cruz
La Mesa, CA 92041
1st Tues., Casa del Prado, 7:30 p.m.

SAN DIEGO DAYTIME

AFRICAN VIOLET SOCIETY
Pres: Mrs. Toni Baker 582-7516
6475 50th Street
San Diego, CA 92120
2nd Mon., Fellowship Hall, Christ United
Methodist Church, 3295 Meade, 12 noon

SAN DIEGO EPIPHYLLUM SOCIETY

Pres: Mr. Ron Miller 746-9620
822 Via Rancho Parkway
Escondido, CA 92025
2nd Wed., Casa del Prado, 7:30 p.m.

SAN DIEGO FERN SOCIETY

Pres: Mrs. Edwin R. Gould 475-8996
7146 Argonauta Way
Carlsbad, CA 92008
3rd Thurs., Casa del Prado, 7:30 p.m.

**SAN DIEGO FUCHSIA & SHADE PLANT
SOCIETY**

Pres: Mr. Ron Berkel 465-7649
1142 Osage Drive
Spring Valley, CA 92077
2nd Mon., Casa del Prado, 7:30 p.m.

SAN DIEGO GERANIUM SOCIETY

Pres: Mr. George Plaisted 583-9551
6356 Delbarton Street
San Diego, CA 92120
2nd Tues., Casa del Prado, 7:30 p.m.

SAN DIEGO GESNERIAD SOCIETY

Pres: Mr. Mike Ludwig 574-1138
642 Torrance Street
San Diego, CA 92103
1st Thurs., Casa del Prado, 7:30 p.m.

**SAN DIEGO - IMPERIAL COUNTIES
IRIS SOCIETY**

Pres: Mr. Albert Feldman 747-6584
2050 Oakhill Drive
Escondido, CA 92027

SAN DIEGO ROSE SOCIETY

Pres: Ms. Patty Howell 436-3960
1045 Passiflora Ave.
Leucadia, CA 92024
3rd Mon., Casa del Prado, 7:30 p.m.

SAN DIEGUITO GARDEN CLUB

Pres: Mrs. Jan Netusil (Mary) 753-1044
912 Emma Drive
Cardiff, CA 92007
4th Wed., Ecke Family Bldg., Quail Garden,
Encinitas, 10 a.m.

**SAN MIGUEL BRANCH
AMERICAN BEGONIA SOCIETY**

Pres: Mr. Mike Ludwig 574-1138
642 Torrance Street
San Diego, CA 92103
1st Wed., Casa del Prado, Rm. 104, 7:30 p.m.

SOGETSU SCHOOL OF IKEBANA

Pres: Mrs. Leroy Lahey 423-1571
2829 Flax Drive
San Diego, CA 92154

SOUTHWEST GROUP, JUDGES COUNCIL

Chr: Mrs. Edwin R. Gould 475-8996
2111 Rachael Avenue
San Diego, CA 92139
1st Wed., Casa del Prado, 10:00 a.m.

SOUTHWEST HEEMEROCALLIS SOCIETY

Pres: Mr. C.R. Bowman 273-7937
3927 Sequoia Street
San Diego, CA 92109
1st Sat., Feb., Apr., Jun., Sep., Nov. 10 a.m.
Quail Gardens Meeting Room
Quail Gardens Rd., Encinitas

VILLAGE GARDEN CLUB OF LA JOLLA

Pres: Mrs. B.B. Puddy 487-4148
16303 Avenida Florencia
Poway, CA 92064
4th Thurs., La Jolla United Methodist
6063 La Jolla Blvd., La Jolla 1:00 p.m.

PROFESSIONAL AFFILIATES

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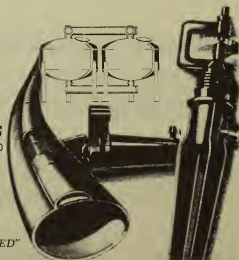
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HORTICULTURE CALENDAR

continued from inside front cover

- Apr. 5** } **Growing and Marketing New and Unusual Fruits Course;** discussing opportunities for small farm production. Contact Ann Richwine, University of California Extension, Riverside, CA 92521-8112, (714) 787-4102.
- May 3** }
- June 7** }
- Apr. 6** } **Convair Garden Club's 36th Annual Rose Show.** Majorca Room, Casa del Prado, Balboa Park, San Diego. Sun: 1-4:30 p.m. Free.
- Apr. 12 & 13** } **San Diego Rose Society 59th Annual Show "Through the Years".** Balboa Park Club, Balboa Park, San Diego. Entries Sat: 7-10 a.m. Show Sat: 2-6 p.m.; Sun: 10-5:30 p.m. Admission \$1.00. Show Chairman: (619) 444-2552.
- Apr. 12 & 13** } **Rancho Santa Fe Garden Club's Annual Flower Show and Plant Sale** at Garden Club on La Granada and Avenida Acacias. Free admission. Open to the Public. Hours: Sat: 1-5 p.m.; Sun: 10-5 p.m. Information: Joan Hamrick 756-2758. Artistic arrangements.
- *Apr. 15** } **San Diego Floral Association Dinner Meeting.** Jim Long, a California Park Ranger presents a tribute to the High Sierras set to symphony music. A very unique and beautiful slide show set to music. Reservations (619) 232-5762.
- Apr. 16-20** } **San Francisco Landscape Garden Show** at Pier Two, Fort Mason overlooking San Francisco Bay. Open 10-7 p.m. daily. More than 25 landscaped gardens will be shown. Featured will be a Garden Market Place offering fine garden tools, pots, books and other gardening items and areas for floral and horticultural demonstrations. General admission \$5.00. Groups of ten or more will be \$3.50 per person, pre-paid and scheduled in advance. Docent tours by the San Francisco Conservatory of Golden Gate Park for pre-arranged groups. Information: Liz Murray (415) 221-1310.
- Apr. 18 & 20** } **San Diego County Orchid Society 40th Annual Show "An Orchid Affair".** Scottish Rites Center - 1895 Camino del Rio South, Mission Valley, San Diego. Fri: 7-10 p.m.; Sat: 9 a.m.-9 p.m.; Sun: 9-5 p.m. Admission \$3.00. Free parking.
- Apr. 18-20** } **San Diego Home/Garden First Annual Spring Garden Show.** O'Brien Pavilion, Del Mar, CA. Fri & Sat: 10-8 p.m.; Sun: 10-5 p.m. Admission Adults \$5.00. Children under 12 Free. Information: 233-4567.
- Apr. 19 & 20** } **Dos Valles Garden Club Annual Flower Show "Everything Created Beautiful".** Valley Center Community Church, 29105 Valley Center Road, Valley Center, CA 1-5 p.m. Free admission and parking. Show Chairman: Mrs. Keith West - Telephone (619) 749-1920. Each room will be converted into a flower garden with artistic arrangements, plants and the fruits of members' gardens. Displays by the Junior Garden Club, arrangements by men members, a bird exhibit as well as an array of wild flowers will be shown.
- Apr. 19-20** } **Fallbrook Garden Club Inc. presents its 55th Annual Flower Show, "Carnival of Flowers",** in Bowers Auditorium at Potter Junior High School, 1743 Reche Road, Fallbrook, CA. Free. Sat: 2-8 p.m. Sun: 10-4 p.m. Displays will include Horticulture, Artistic Design, Junior Gardening, and Educational divisions. Door prizes and trophies will be awarded 3 p.m. on Sunday. The public is invited to enter exhibits on Friday, April 18 from 7-9 p.m., and on Sat. morning, April 19 from 7-9 a.m. Show Chairman Rose Holland (619) 723-0665.

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HORTICULTURE CALENDAR

- Apr. 19 & 20** **San Diego-Imperial Counties Iris Society 21st Spring Show.** Majorca Room, Casa del Prado, Balboa Park, San Diego. Sat: 1-5 p.m. Sun: 10 a.m.-5 p.m. Free.
- Apr. 26** **La Jolla Garden Club presents a Flower Festival and Plant Sale.** Saturday from 10-2 p.m. in the San Diego Trust and Savings Parking Lot, 7733 Girard Avenue, La Jolla, California. Refreshments will also be available. Public invited. No charge.
- Apr. 26** **Spring Open House, Rancho Santa Ana Botanic Garden,** 1500 North College Avenue, Claremont, CA 91711. (714) 625-8767. Sat: 10-4 p.m. Free admission. Theme: Alta California - Baja California. A Shared Heritage of its Plants, Land and People. Explore the grounds, research library, herbarium of pressed plants. Skilled Mexican artisans demonstrate folk arts, talks on botanical exploration, small plant sale and display.
- April 26 & 27** **Coronado Floral Association's 61st Annual Flower and Garden Show.** Theme: Saluting Coronado's 100th Anniversary with "That's Entertainment". Spreckles Park, Orange Avenue between 6th and 7th Streets, Coronado, CA. Free parking. Admission: Adults \$1.50; Children \$.25. Sat: 1-5 p.m. Entertainment and instructional exhibits beginning at 2 p.m. Sun: 10-4 p.m. Entertainment and instructional exhibits beginning at 11 a.m. Presentation of trophies at 3 p.m. Sale of cut flowers and plants at 4 p.m. Also in the park: Coronado Art Association Art in the Park, Friends of the Library Book Fair, and Refreshment Stands.
- Apr. 26 & 27** **San Diego Bonsai Club's 21st Annual Spring Show.** Majorca Room, Casa del Prado, Balboa Park, San Diego, CA. Sat & Sun: 10 a.m.-5 p.m. Free.
- *May 3** **Floral Bus Tour to Olvera Street, Los Angeles, CA \$19.75.** See typical Mexican market place, Casa Adobe, Old Plaza Church, Union Station Train Depot. Pickup points: Balboa Park, La Jolla Village Square, and Hadleys. Reservations: Jerry Ray 232-2661.
- May 3 & 4** **Balboa Park African Violet's 11th Annual Show.** Majorca Room, Casa del Prado, Balboa Park, San Diego. Sat: 1-5 p.m. Sun: 10-4 p.m. Free.
- May 3 & 4** **Southwest Branch, International Geranium Society Annual Show and Sale.** Plummer Park, 7377 Santa Monica Blvd., Los Angeles, CA.
- May 3-17** **Tour to Roman Palaces and Gardens from London.** For further information contact: Elizabeth Shaw, 130 East 67th Street, New York, NY 10021. Tel: (212) 794-1491.
- May 4** **Quail Botanical Garden Foundation "Fun and Funds Festival",** Quail Gardens, Ecke Family Building, 230 Quail Gardens Drive, Encinitas, CA Sun: 10-4 p.m. Free.
- May 4** **Central Coast Branch, International Geranium Society's Plant Sale and Show,** Arroyo Grande, CA. 12-4 p.m. Information: Call (805) 489-0548.
- May 9-12** **38th Annual Tulip Festival, Albany, New York.** Information: Elizabeth Hemstead, Pamela Sawchuk Associates, 170 Washington Avenue, Albany, NY 12210. Phone: (518) 462-0318.
- May 14-17** **Tulip Time Festival Holland Michigan.** Information: Holland Tulip Time Festival, Inc., Holland, Michigan 49423.
- May 15-17** **46th Annual Orange City, Iowa Tulip Festival.** For information write to Orange City Chamber of Commerce, 125 Central Avenue, S.E., Orange City, Iowa 51041.
- May 17 & 18** **San Diego Geranium Society's Show and Plant Sale,** Casa del Prado, Balboa Park, San Diego, CA. Sat: 12-5 p.m. Sun: 10-5 p.m.
- June 19/July 6** **Del Mar Fair.** Plan to stop by and/or help at our California Garden table in the new gazebo at the Fair.
- *June 27-29** **Lompoc Flower Festival Trip sponsored by San Diego Floral Association.** Includes grand parade, arts and crafts show, Alpha flower show, flower field tour (19 miles) and La Purisima Mission. Certain requirements and restrictions apply. Seat choice determined by date of prepayment. Call Jerry Ray 232-2661 for reservations.
- June 28** **Growing unusual fruits in Southern California Gardens Course.** Contact: Patricia Healy, University of California Extension, 10995 Le Conte Avenue, Room 414, Los Angeles, CA 90024. Phone: (213) 825-9414 ext. 1735.
- Oct. 17-21** **Ikebana 5th World Convention in Kyoto, Japan.** Contact San Diego Chapter No. 119, Ikebana International for details. President Haruko Crawford (619) 465-3046.

Deadline date for all Horticultural Events to be listed in May/June issue is April 1, 1986. Submit to CALIFORNIA GARDEN, San Diego Floral Association, Inc., Casa del Prado, Balboa Park, San Diego, CA 92101-1619.

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